OFFICE OF MANAGEMENT & ADMINISTRATION

1999 WORKFORCE AND DIVERSITY ANALYSIS

Office of Business Management
March 1999

OFFICE OF MANAGEMENT AND ADMINISTRATION

1999 Workforce and Diversity Analysis

Table of Contents

Introduction

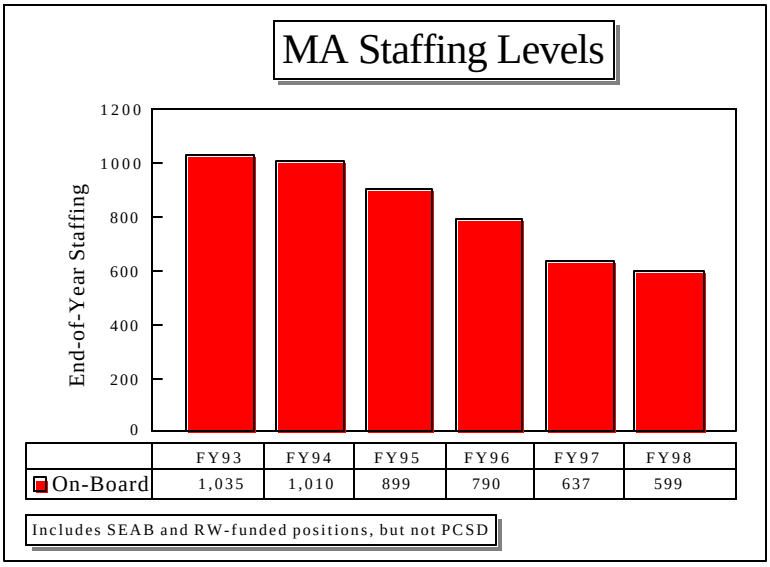
The purpose of this paper is to summarize information regarding the demographics of the Federal workforce of the Office of Management and Administration (MA).[1]

The Office of Management and Administration provides a broad range of services in support of the Department of Energy missions. Among other things, the Office provides flu shots, air conditioning, telephones, paychecks, elevators, parking spaces, and credit cards - - dozens of services and products that are largely taken for granted but are necessary for the functioning of a cabinet agency. While this report does not focus on these services, it is important to recognize that the effective and efficient delivery of these benefits is dependent on the MA workforce, composed of approximately 600 Federal employees.[2]

Staffing Level

The most dramatic change in MA staffing over the past five years has been the reduction in the number of personnel. As shown in Figure 1, M&A staffing decreased by over 40% from the end of FY 1993 to the end of FY 1998.

Figure 1

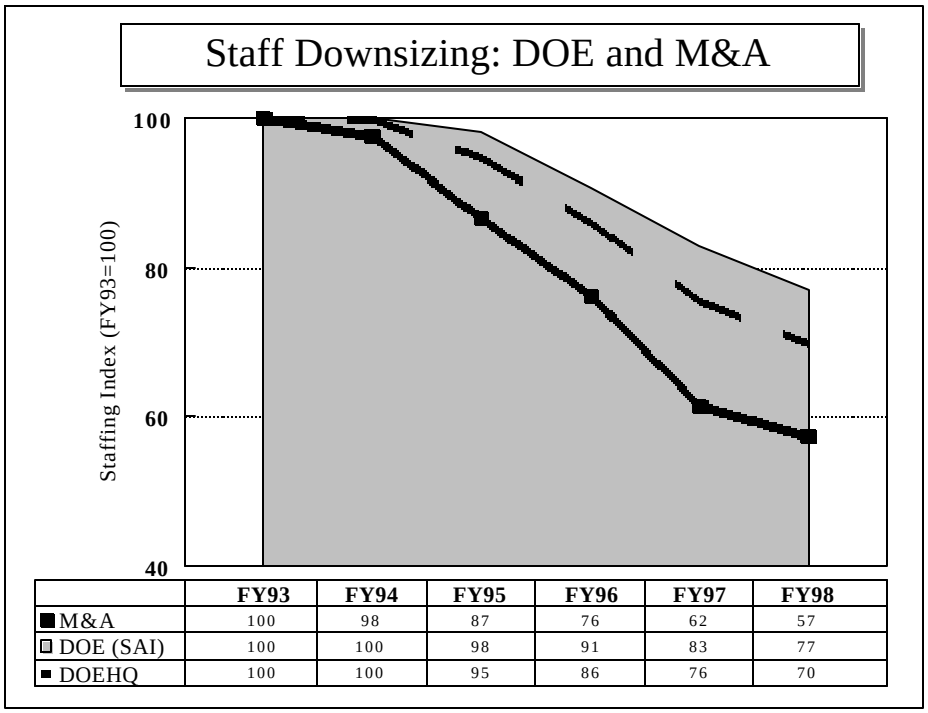


[1] References to the Office of Management and Administration include, in historical information, the organizations and staff that reported to the Assistant Secretary for Human Resources and Administration from the late 1993 configuration of that structure early in the Clinton Administration.

[2] There are approximately 600 contractor personnel who support MA activities, but MA does not have a direct employment relationship with these persons, and they are not included in this demographic analysis.

This staffing reduction occurred at the same time that the Department was reducing staff, though, as shown in Figure 2, the rate of decline in MA staffing was twice the rate of decrease in overall DOE staffing.

Figure 2



	FY93	FY94	FY95	FY96	FY97	FY98
M&A	100	98	87	76	62	57
DOE (SAI)	100	100	98	91	83	77
DOEHQ	100	100	95	86	76	70

One reason why the rate of decrease has been higher in MA than the rest of the Department is that MA started downsizing earlier in the Clinton Administration, principally through a self-imposed hiring freeze. MA also made significant use of buyouts during the period when "SAI" targets were first being set. As discussed further below, the limits on new hires, extensive use of buyouts, and the passage of time have combined to shape the demographics of the MA workforce.

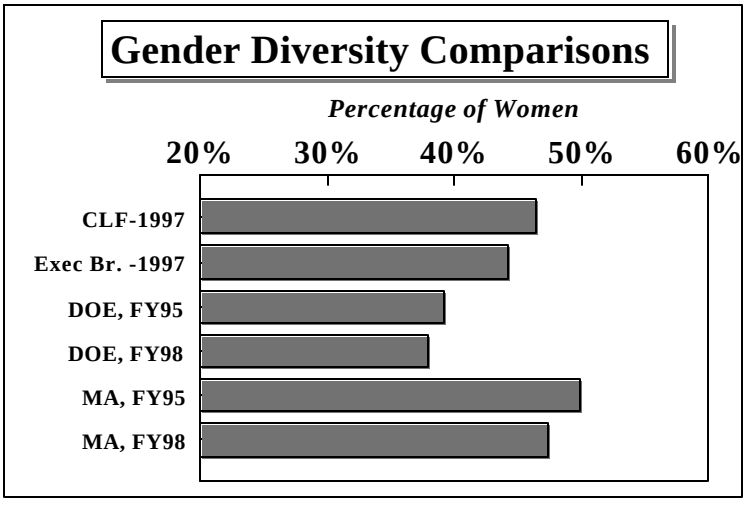
The rate of decrease in MA employment has been substantially higher than the decline in overall Federal civilian employment and the decreases in the Washington, D.C. Metropolitan Area. Table 1 provides comparisons of different rates of employment change based on the 1998 edition of the Office of Personnel Management "Fact Book." The MA decline rate was over three times the cut in Washington, D.C. Federal employment.

Table 1: Changes in Civilian Employment, 1994 to 1997 (September 30)			
	1994	1997	Percent Change
Total Federal Civilian Workforce (000)	2971.6	2787.1	-17%
Non-DOD Executive Branch (000)	1205.6	1122.3	-7%
Washington DC SMSA (000)	366.4	325.3	-11%
Department of Energy (SAI Basis)	13444	11168	-17%
DOE Headquarters (without MA)	5642	4411	-22%
Management and Administration	1010	637	-37%

Gender

The number of women in the Federal workforce is about the same (800,000) as it was 15 years ago, while the number of men has declined from over 1,200,000 to approximately 1,000,000 over the same period of time. As a consequence, the proportion of women in the Federal workforce has gradually increased from 40% in the early 1980's to over 44% in 1997. [3] As shown in Figure 3, the Federal Government employs a slightly lower proportion of women than does the overall U.S. economy, and the Department of Energy has a still lower proportion of women employees.

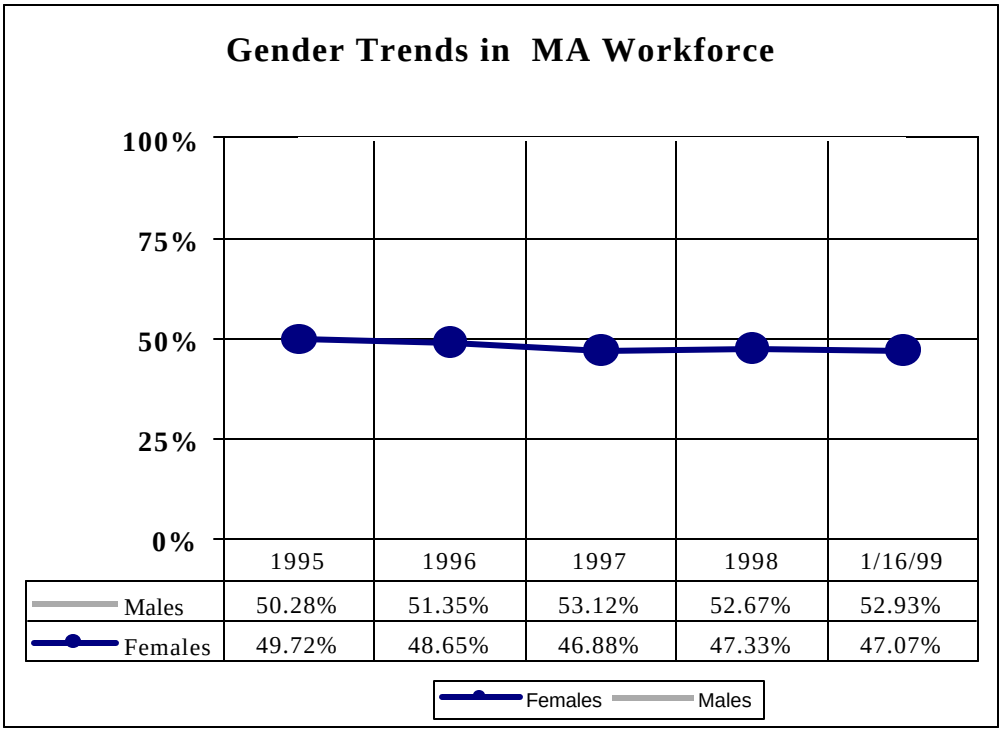
Figure 3



[3] OPM 1998 Fact Book, page 36

Management and Administration stands in contrast to the overall Federal Government and especially to the Department, in that nearly half of MA employees are women. This proportion has declined slightly during the 1993-97 downsizing period, as shown in Figure 4 below. Specifically, women represented almost 54% of the persons leaving MA from 1993 through 1997 but only 35% of the new hiring. This created the pattern of gradual decline shown below.

Figure 4



On average, the women in the MA workforce are three years younger than the men; in early 1999, this entails an average age for women of 45.8 years versus 48.8 years for the men. As shown in Figure 5, this phenomenon holds true for each ethnic group in the workforce. One effect of this difference is that men will tend to become eligible for retirement somewhat earlier than women, as depicted in Figure 6. This suggests that the 1993-7 trend shown in Figure 4 could be reversed over time, with women becoming a larger share of the workforce. A key unknown in such a prediction is whether women and men will have an equal tendency to exercise their retirement options. There is some evidence to suggest that women in the MA workforce are more likely than men to exercise their retirement option at first opportunity.

Figure 5

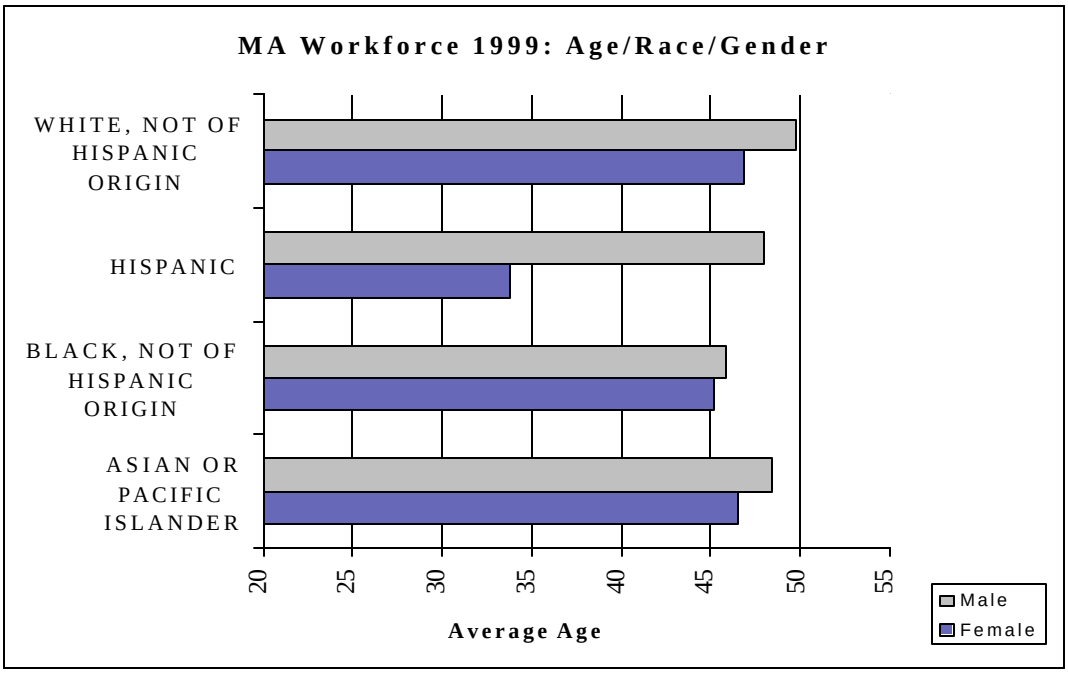
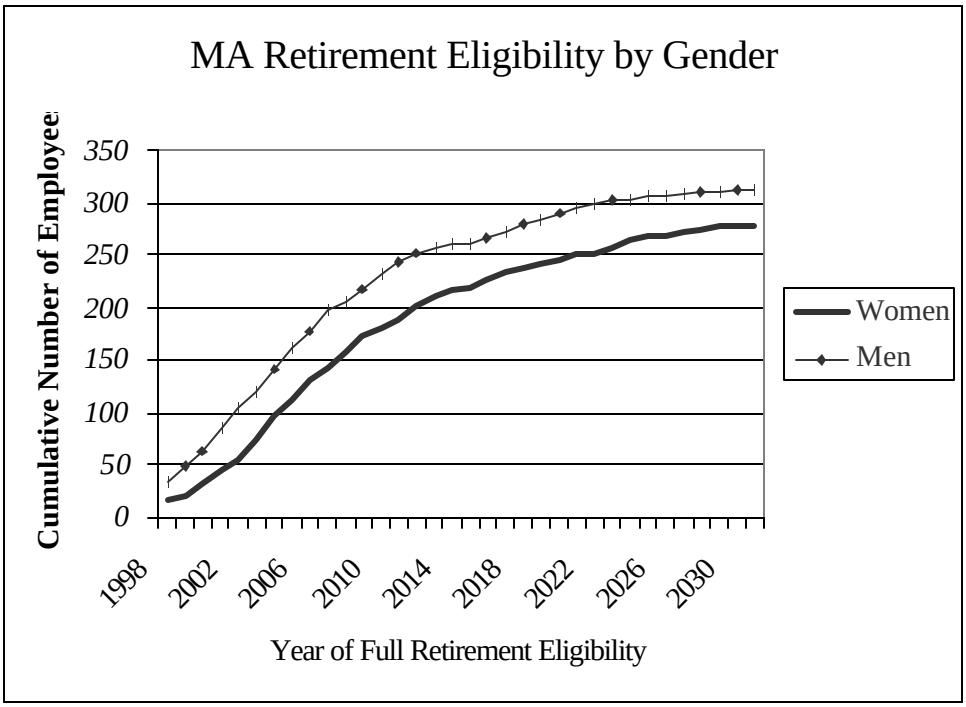
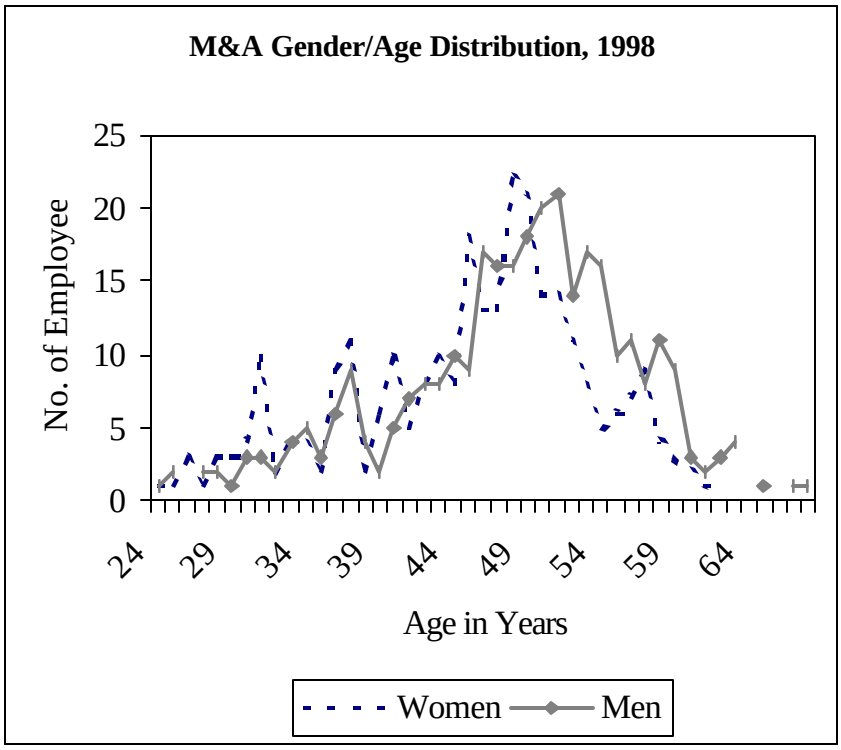


Figure 6



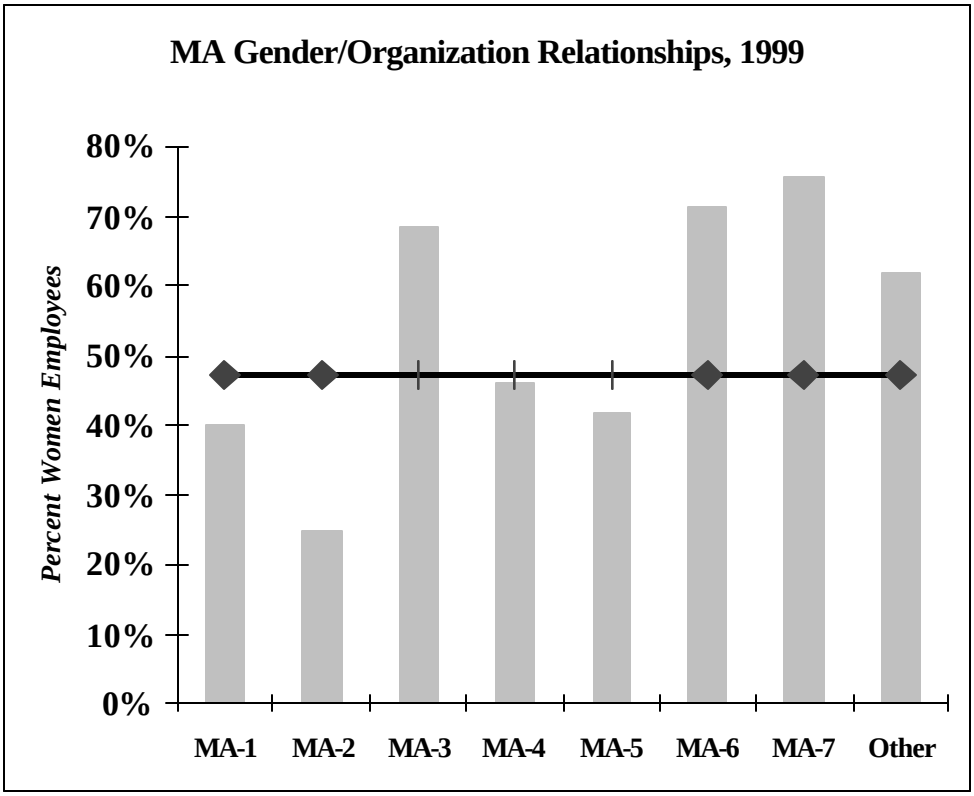
While the average woman in MA is younger than the average man, the age distributions within each gender are very similar, as depicted in Figure 7.

Figure 7



Different parts of MA have very different gender representation, as shown in Figure 8. The horizontal line represents the MA-wide average, whereas the bars reflect the proportion of women in the workforce of each organization. The Office of Administration (MA-2) workforce is approximately 25% women, whereas Human Resources Management (MA-3), Performance Excellence (MA-6) and the Executive Secretariat (MA-7) have very high representation of women.

Figure 8



The average grade for MA employees is approximately GS-12, but there is about a one grade difference between the average man (GS-12.5) and woman (GS-11.6) in the MA workforce.[4] Figure 9 provides the 1999 count of employees by gender and grade. This differential has narrowed since 1995 when the comparable averages would have been 11.7 for men and 10.3 for women.

Figure 10 demonstrates how this margin has narrowed, illustrating that women have, on average, been promoted more recently than men. As of January 1999, the average woman in the MA workforce had received her most recent promotion in 1993, whereas the average man had received his most recent promotion in 1990. In terms of medians, the median woman had received her last promotion in 1994, whereas the median man had received his last promotion in 1992. Therefore, there has been a consistent and sustained pattern involving higher promotion rates for women.

[4] Two simplifying assumptions were made for these calculations: (1) that SES was the equivalent of GS-16 and (2) that Wage Grade and GS grades were equivalent. Focusing only on persons in the General Schedule, the 1999 averages would be 13 for men and 11.7 for women.

Figure 9

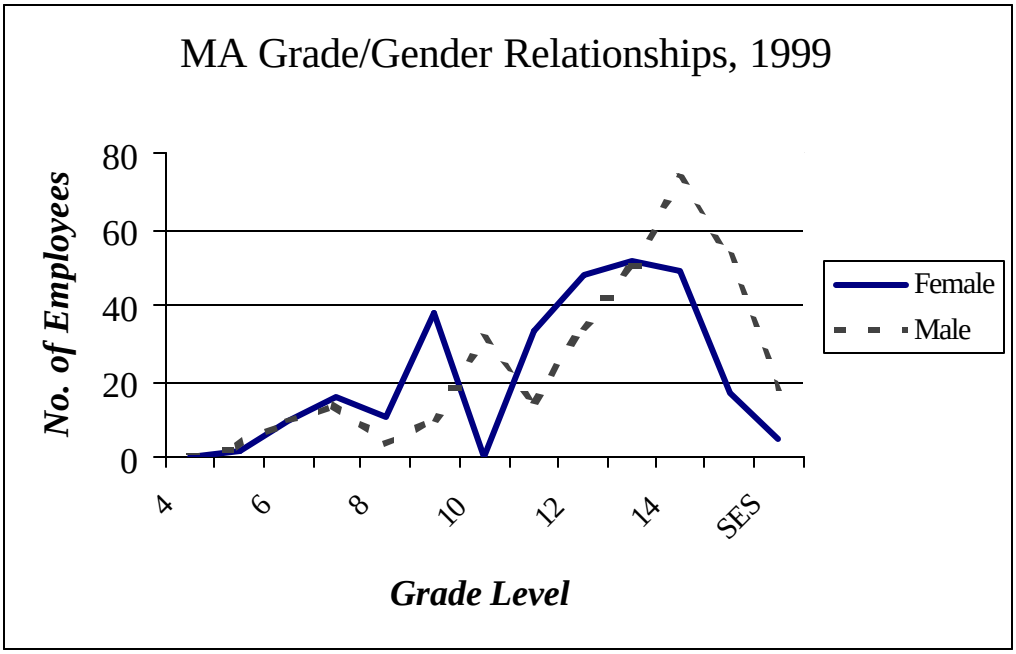
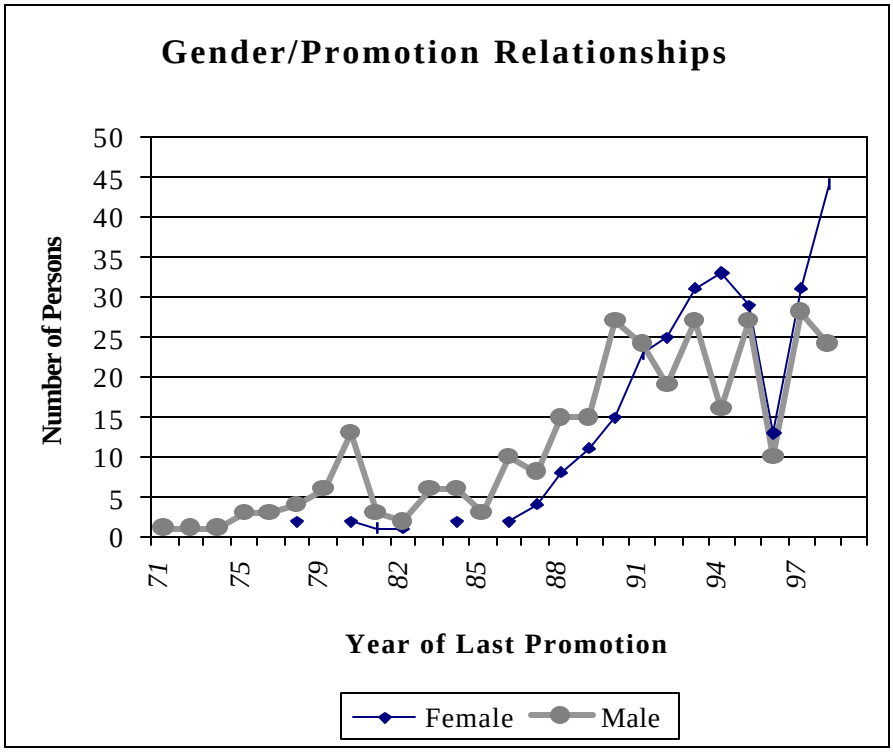


Figure 10



Women have tended to receive higher performance ratings than men, as shown in Figures 11 and 12 below, which illustrate the proportion of each gender receiving ratings on a 5-point scale (where "5" is the highest). This appears due in part to the tendency for the organizations with a higher proportion of women employees to issue somewhat higher performance ratings. The gender trend was true at all grade levels.

Figure 11

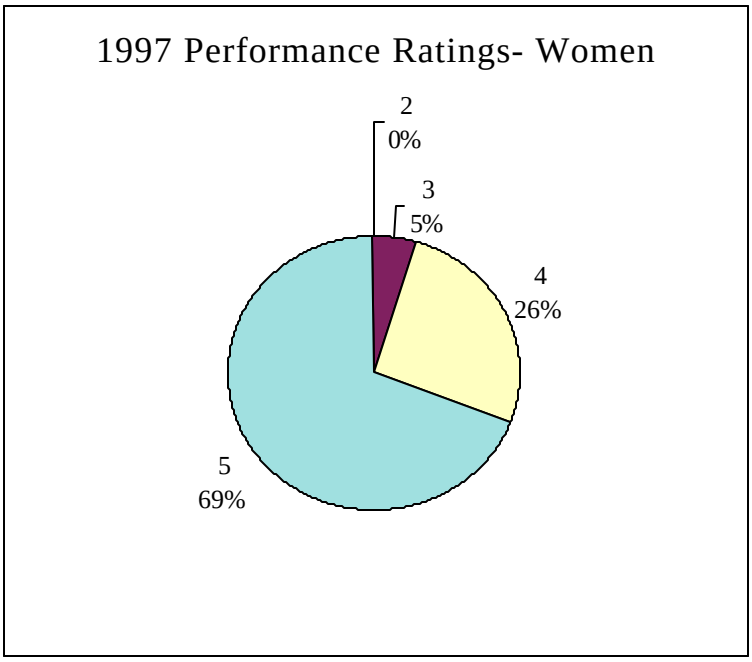
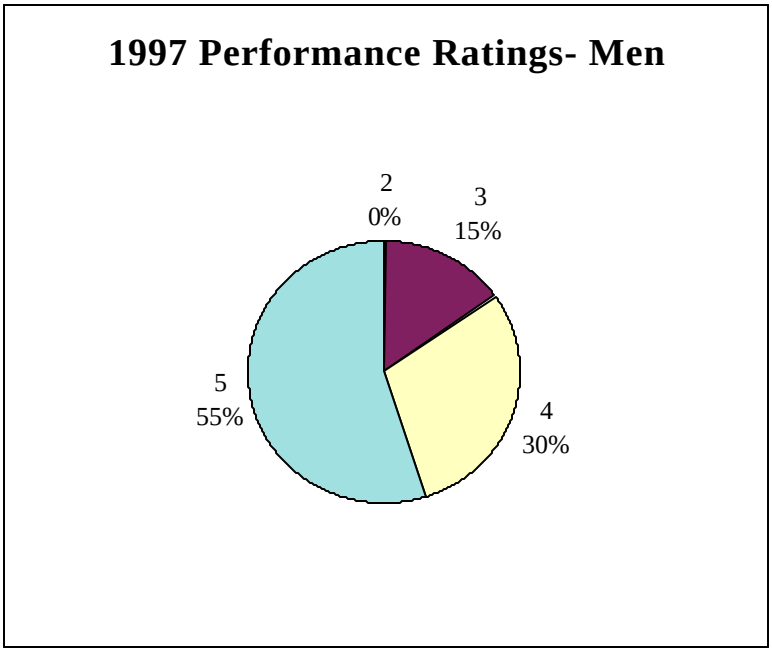


Figure 12



Ethnicity

Overall, the MA workforce has more ethnic diversity than the U.S. civilian, Federal civilian, and DOE workforces, as shown in Table 2 below, but there is a pattern of proportionate underrepresentation of Hispanic, Asian/Pacific Islander, and American Indian persons.

Table 2: Ethnic Diversity in the MA Workforce

	African American	Hispanic	Asian	American Indian	Other	Total
Civilian Labor Force (%)	10.4%	8.1%	2.8%	0.6%	77.9%	100%
Federal Civilian Employment, 1997	16.7%	6.2%	4.4%	2.1%	70.6%	100%
DOE (2/99) (Number)	1,839	845	623	213	12,552	16,074
DOE (2/99) (Percent)	11.4%	5.3%	3.9%	1.3%	78.1%	100%
MA, 9/98 (Number)	214	9	7	0	350	577
MA, 9/98 (%)	37.1%	1.6%	0.7%	0.0%	60.7%	100%

The absolute numbers for all ethnic groups in the MA workforce have decreased over time, as shown in Figure 13. However, the proportions of ethnic groups have remained more constant, as shown in Figure 14**.** From 1995 to January, 1999, the MA workforce decreased by 32.2%. The "Other" category (White, Not of Hispanic Origin) decreased very slightly less (31.8%) , while the African-American members of the workforce decreased by slightly more (33.6%). The trends in the smaller groups were more volatile, with Asian and Pacific Islander employees decreasing from 11 to 5 (55%), but Hispanic persons increasing from 12 to 13 (plus 8%).

Figure 15 provides a further perspective on these trends, reflecting both ethnicity and gender in a trend analysis that shows the stability over time of the overall diversity patterns in MA, notwithstanding the dramatic changes in the actual numbers of employees.

Figure 13

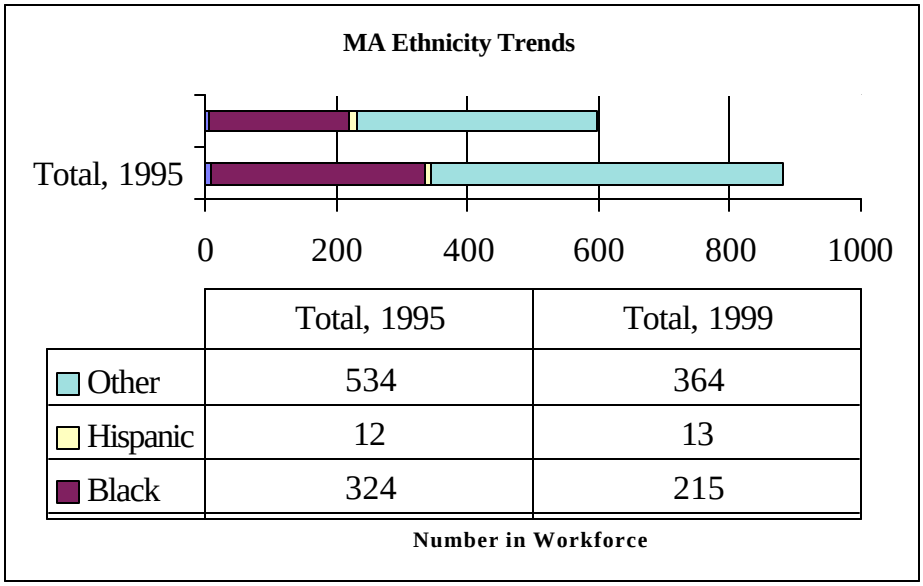


Figure 14

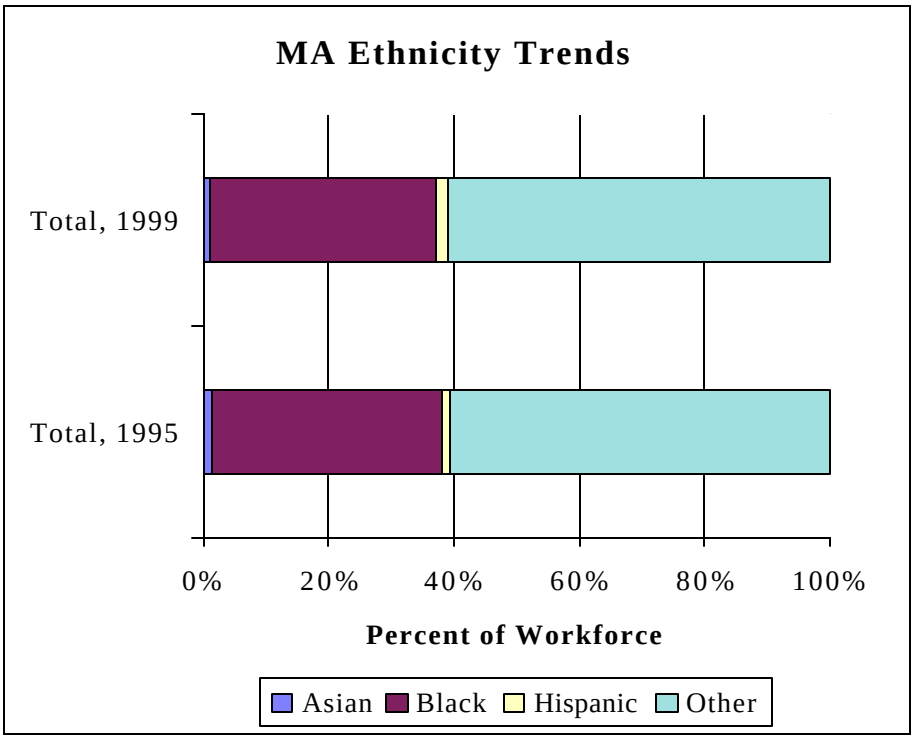
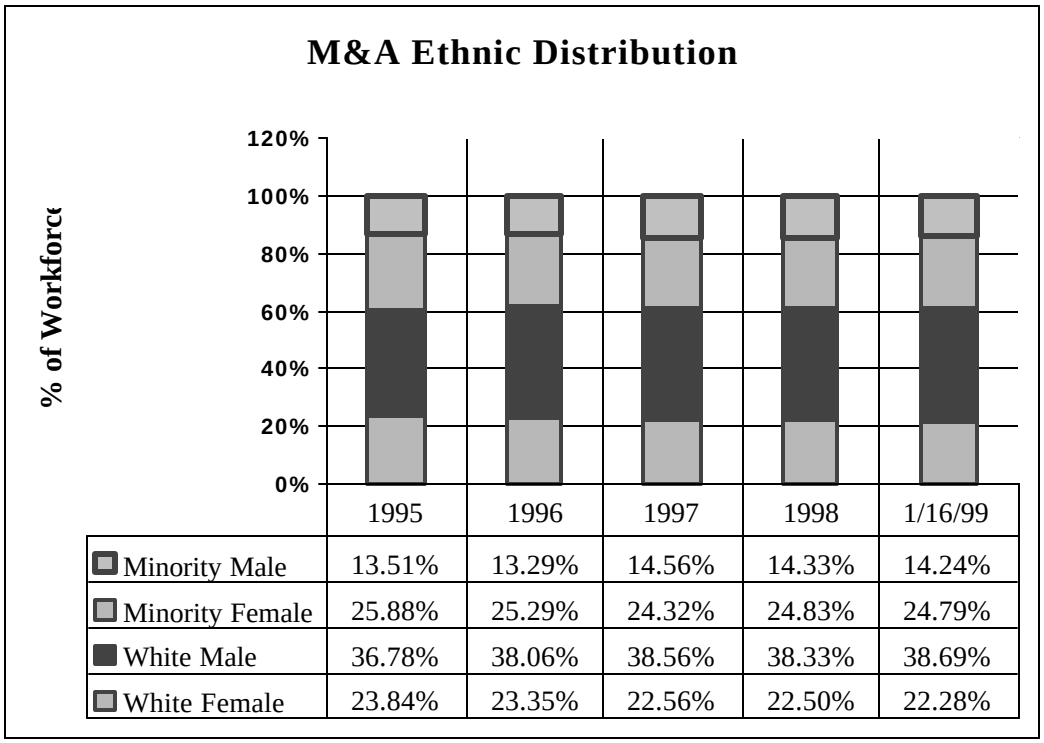


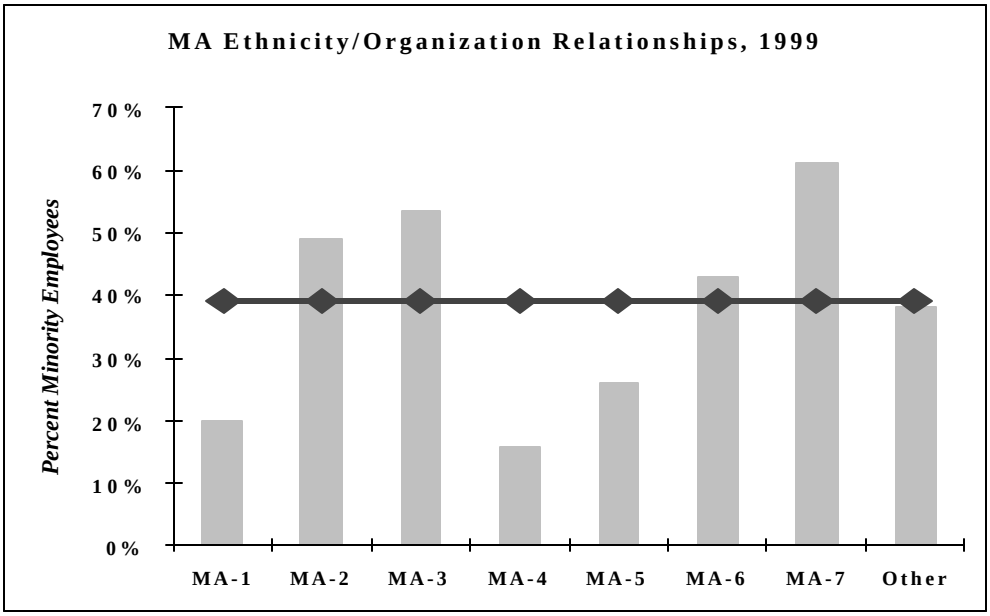
Figure 15



	1995	1996	1997	1998	1/16/99
Minority Male	13.51%	13.29%	14.56%	14.33%	14.24%
Minority Female	25.88%	25.29%	24.32%	24.83%	24.79%
White Male	36.78%	38.06%	38.56%	38.33%	38.69%
White Female	23.84%	23.35%	22.56%	22.50%	22.28%

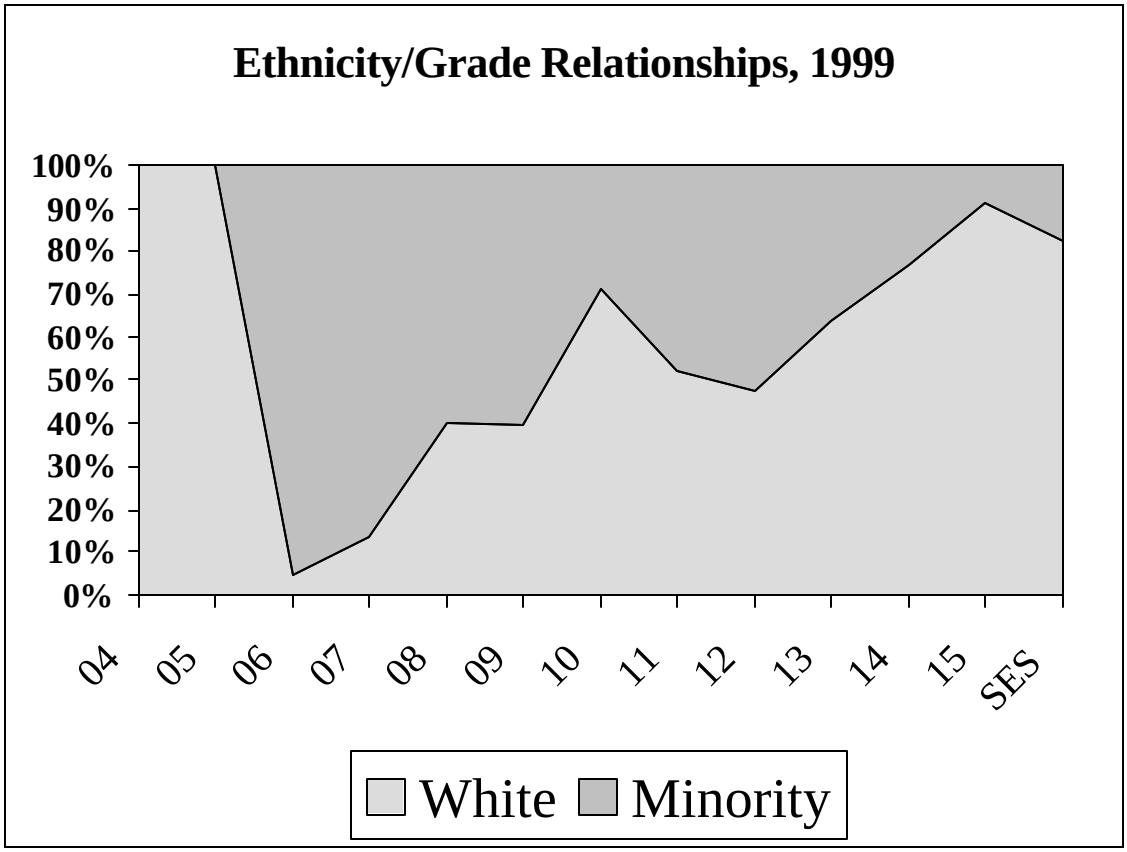
As was the case for gender, as shown in Figure 8, the distribution of ethnic groups is not uniform across all parts of MA. Figure 16 compares the percentage of minority persons in each organization (bars) to the average for all of MA (horizontal line).

Figure 16



Minority persons tend to be under-represented at higher grade levels within MA, as illustrated in Figure 17 below. Specifically, minority persons, who represent almost 40% of the MA workforce, are less than half as likely as white persons to be above a grade GS-14. The median grade for a minority member of the MA workforce is a GS-12, whereas the median grade level for a white employee is a GS-13.

Figure 17

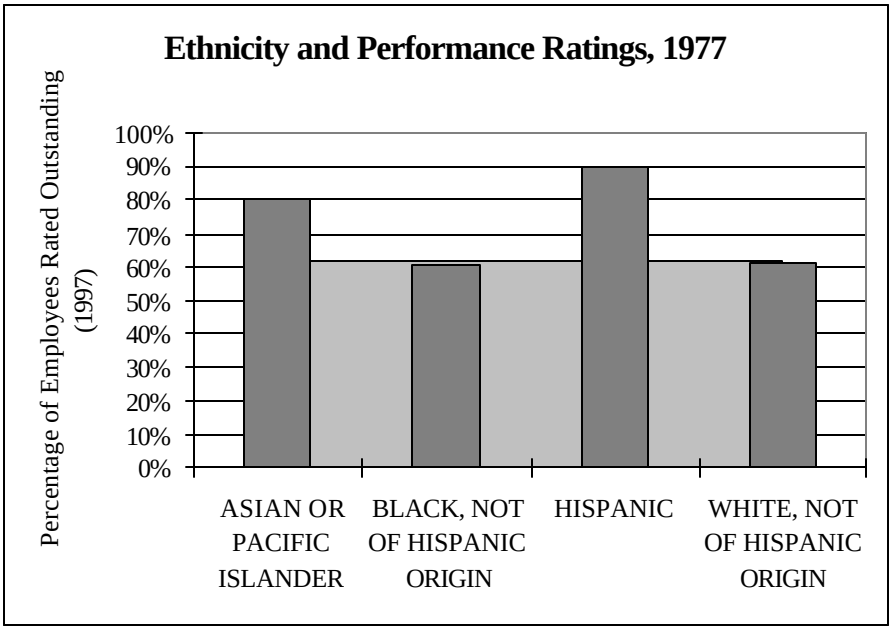


The differences among ethnic groups in average grade levels have narrowed over time. This is due in part to the pattern of promotion activity. As indicated in Table 3, the average year of last promotion was significantly more recent for all minority groups than for white persons in the MA workforce.

Table 3: Relation of Ethnicity and Promotion Patterns	
Ethnic Category	**Average Year of Last Promotion**
Asian or Pacific Islander	1995
Black, Not of Hispanic Origin	1993
Hispanic	1993
White, Not of Hispanic Origin	1991
Overall MA Workforce	1992

Although performance ratings in Management and Administration tend to be higher for higher grade levels, and although minorities tend to have lower grade levels, the performance ratings for minorities are not below those of white persons, as shown in Figure 18. In fact, for minorities other than African Americans, the percentage of "Outstanding" ratings is significantly higher than for white persons.

Figure 18



Age

The average MA employee is in her/his upper 40's, a pattern that tracks closely with the rest of the Department and the entire Federal Government, as summarized in Table 4. The average age of Federal employees is increasing over time by approximately 4 to 6 months each year because continuing employees are, of course, getting older over time, and vacancies are not being filled with younger, entry-level employees as in the past. In DOE, where downsizing has been proportionately higher than in the rest of the Government, the average age has been increasing by about 8 months per year, as has been the case for MA.

Table 4: MA Workforce Age Comparisons (Averages)	
Federal Civilian Workforce, 1988	42.0
Federal Civilian Workforce, 1997	45.2
DOE Employees, 1995	44.5
DOE Employees, 1998	46.7
MA Workforce, 1995	44.6
MA Workforce, 1999	47.4

The effect of these patterns on the composition of the MA workforce has been quite dramatic, as illustrated in the age distribution comparison in Figure 19 below. Specifically, this graph shows that there has been a shift to the right in the employee group that stayed in MA, while there has been a loss of younger employees who, for whatever reason, left the organization. Three related dynamics are shown on this graph:

- The loss of younger employees: In 1995 there were 114 employees age 31 or younger, but in 1999, there were only 64 employees age 35 or younger, so there was a net loss of the younger age group apart from their natural age increase in the intervening four years.

- The aging of the “middle” of the distribution: In 1995 the median employee was 44, but in 1999, the median employee was 48.

- The loss of almost half of the employees who were 50-55 in 1995 and would have been 54-59 today, but who responded to offers for buyouts and early retirements.

The net effect is that the MA workforce is more homogeneous today than in 1995, as depicted by Figure 20. The middle half of the workforce had spanned age 38 to age 52 in 1995, a range of 14

years. In 1999, the middle half spans the range of 42 to 52, a range of only 10 years. A full 25% of the workforce was 53 or older in both years, but there was a substantial drop in the proportion in the early years of their careers.

Figure 19

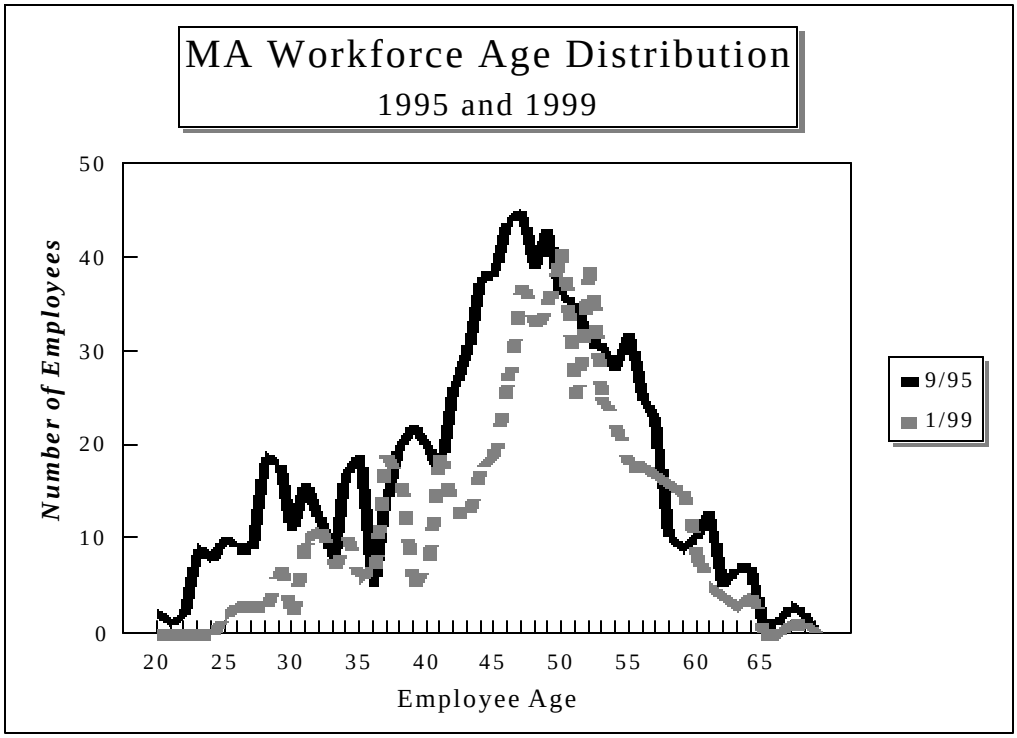


Figure 20

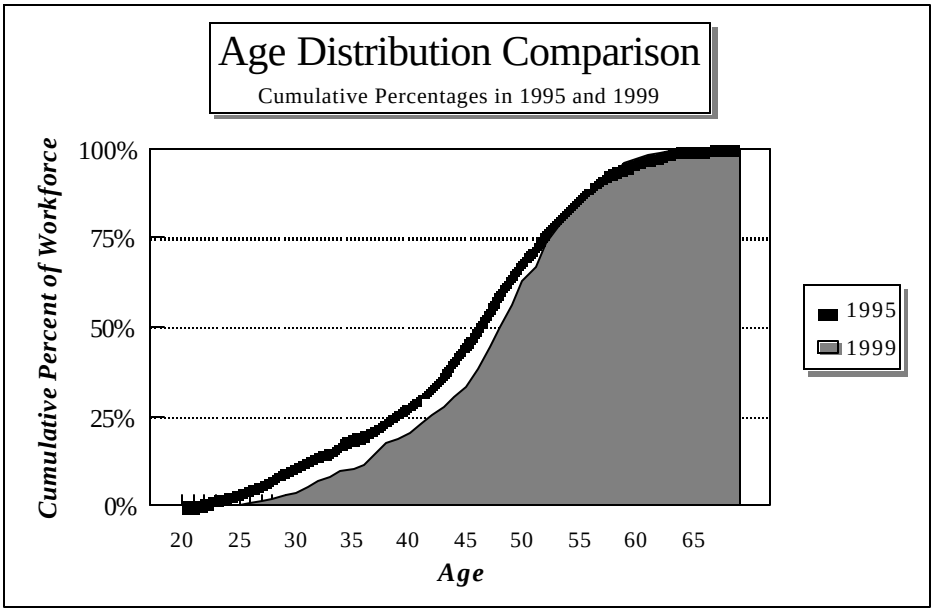
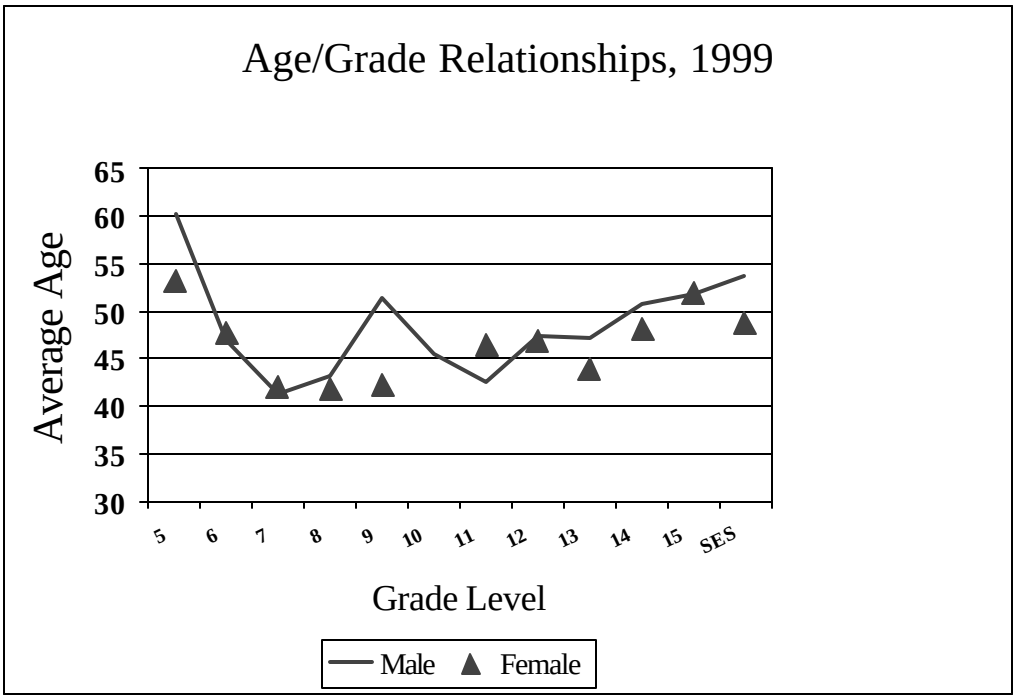


Figure 21 displays, for both men and women, the general relationships between age and grade level. In the lower grades, there tends to be an inverse relationship, wherein the average age declines as grade levels increase. However, at mid-grade levels, the relationship reverses, such that there is a general tendency for both men and women at higher grade levels to be somewhat older. The upward "spike" at Grade 10 for men reflects the older average age of the Wage Grade workforce.

Figure 21



There is a tendency, as shown in Figure 22, for older employees, those over 50, to have a higher level of recorded education than employees in their 40's. The Education section below discusses this phenomenon in more detail, but it needs to be recognized that since education level information is derived from the most recent form 171 on record, this phenomenon may have more to do with data gathering and update issues than with actual education levels.

MA organizations vary slightly in terms of their age characteristics, but most have average ages in the 47-49 range. Table 5 on the following page compares organizations in terms of the average age of men and women. Of the larger organizations, Information Management has the highest average age (49.2 years), followed by Procurement and Assistance Management (48.3 years). On Table 5, the Office of Performance Excellence has been omitted for privacy reasons, as has the staff assigned to the President's Council on Sustainable Development.

Figure 22

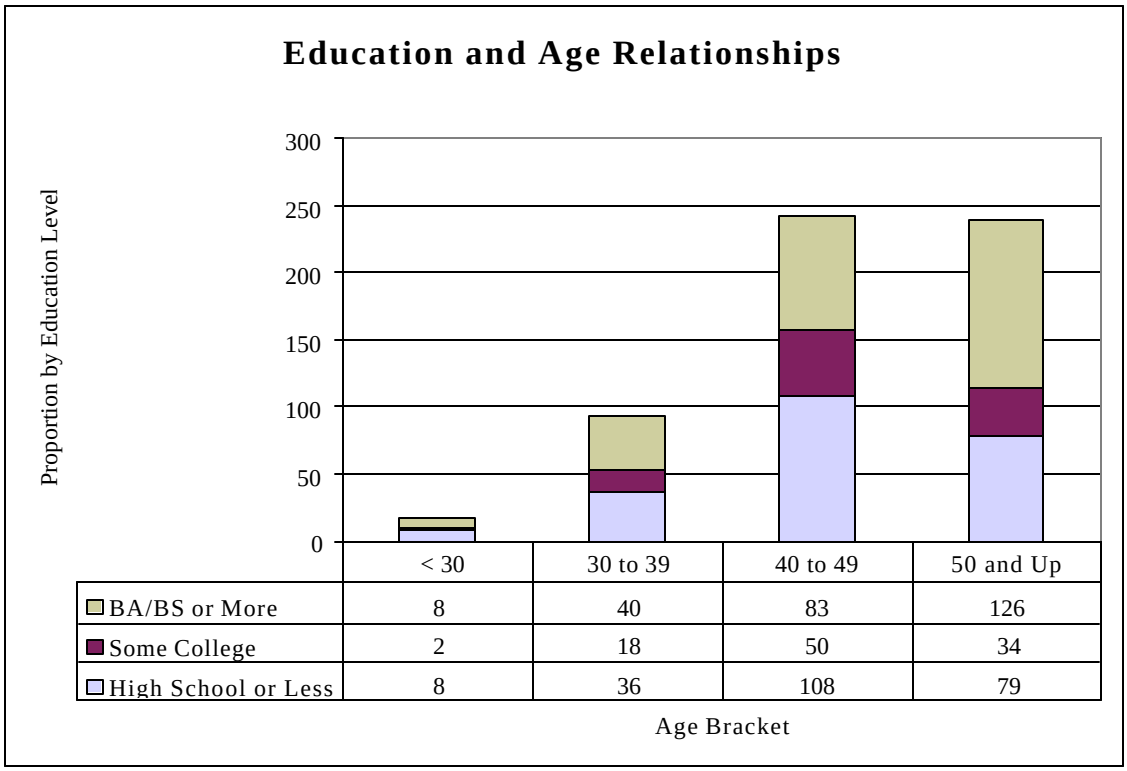


Table 5: Average Age of the MA Workforce by Organization and Gender			
	Women	Men	Total
Business Management	43	42	42
Administration	47	48	48
Human Resources Management	45	49	46
Information Management	48	50	49
Procurement and Assistance Management	46	50	48
Executive Secretariat	48	50	48

Figure 23 explores the age characteristics for MA organizations further by providing the distribution by age grouping for each major organization. While average ages are similar, it is notable that the *mode* (most frequent) age bracket for MA-5 is in the 51-55 range, whereas the other major organizations have their largest groupings in the 46-50 range. This suggests that retirements may affect Procurement somewhat earlier than the other organizations.

Figure 23

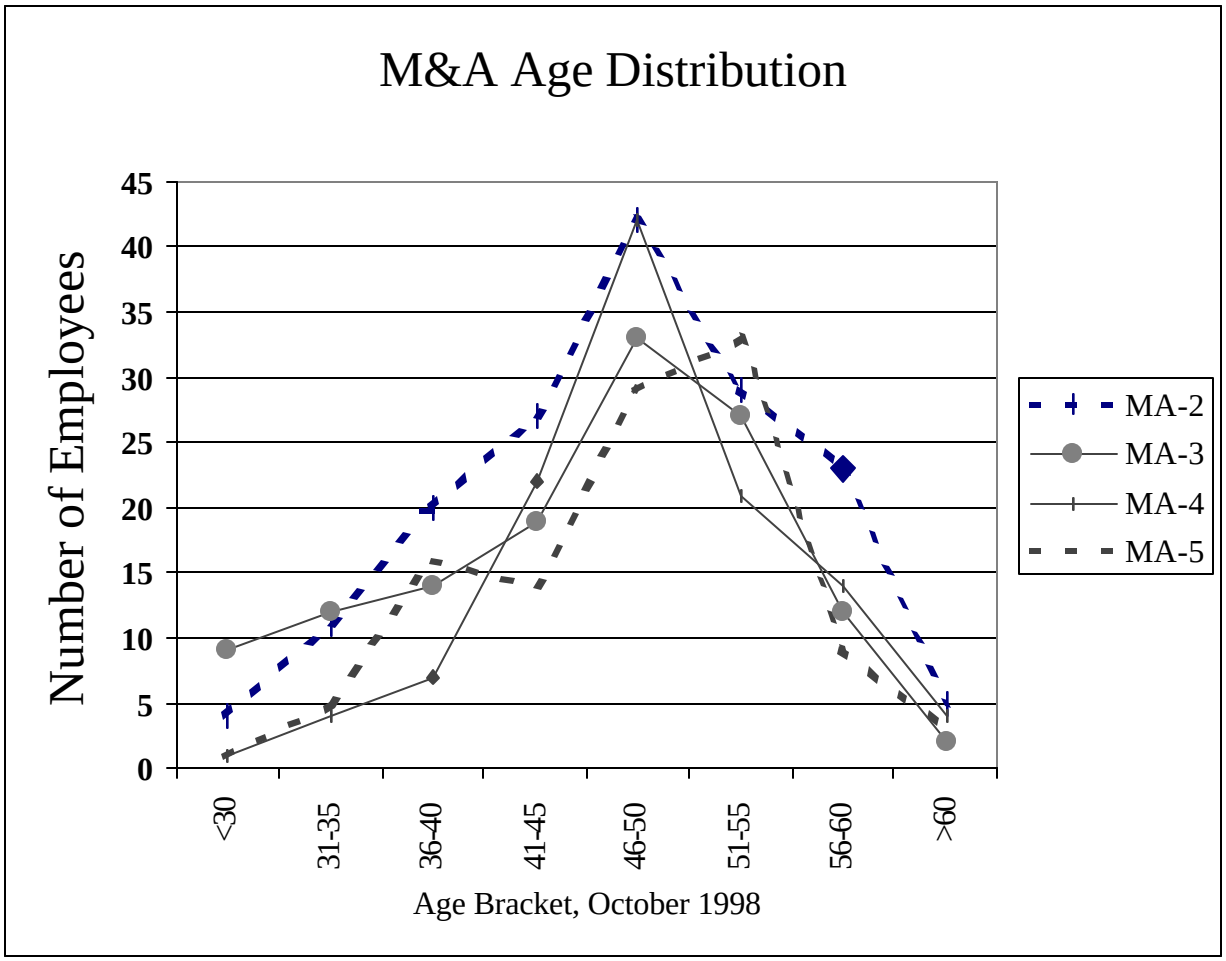
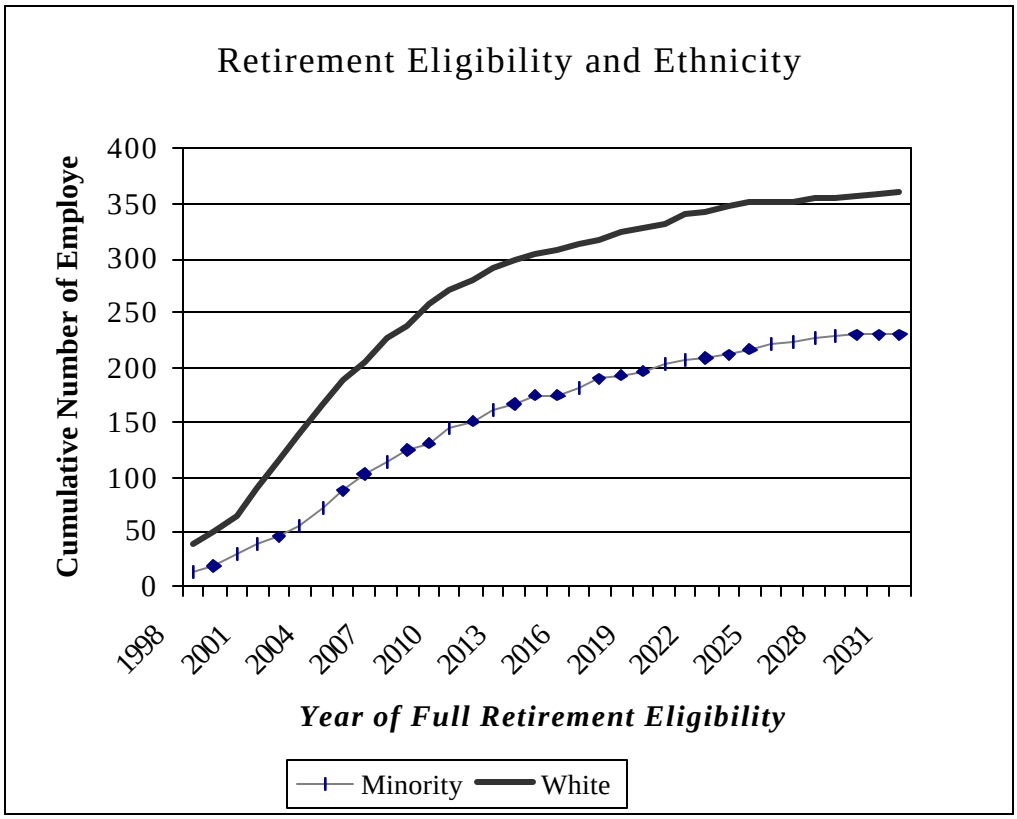


Figure 5 illustrated that women in the MA workforce tend to be somewhat younger than men, both overall and within each ethnic group. Table 6 provides the average age for each ethnic group, covering both genders, and illustrates that white persons in the MA workforce tend to be several years older than African American or Hispanic persons.

Table 6: Age/Ethnicity Characteristics, 1999	
Ethnic Group	**Average Age**
Asian or Pacific Islander	47.7
Black, Not of Hispanic Origin	45.4
Hispanic	43.6
White, Not of Hispanic Origin	48.7
Total MA Workforce	47.4

The higher age of white persons within the MA workforce will likely lead toward proportionately high representation of white persons in retirement actions of the coming years. Figure 24 plots the cumulative number of retirement eligible persons by ethnic grouping in future years. The slope of the line on white retirement eligibility in the early years suggests that the MA workforce will likely have higher minority representation in the future.

Figure 24



The 1998 MA employee survey asked respondents to indicate their age bracket, and this information can be compared to employee responses to certain key questions. Table 7 below summarizes employee responses to the question, "I feel I am fully utilized."

Table 7: Responses to "I feel I am fully utilized."				
	Number of Responses/*Percent of Age Group*			
Response	39 Years Old or Younger	40-49 Years Old	50 and Older	Total
Strongly Disagree	2/*8%*	7/*11%*	5/*8%*	14/*9%*
Disagree	4/*15%*	10/*15%*	9/*15%*	23/*15%*
Neutral	4/*15%*	5/*8%*	4/*7%*	13/*9%*
Agree	8/*31%*	21/*32%*	16/*27%*	45/*30%*
Strongly Agree	8/*31%*	22/*34%*	26/*43%*	56/*37%*

The group that was 50 years old and older had more favorable responses to this question than the younger employees. As shown in Table 8, this group also had more favorable responses to the question about overall satisfaction: compared to younger groups, more employees 50 and older were satisfied or very satisfied.

Table 8: How satisfied are you with MA overall?				
	Number of Responses/*Percent of Age Group*			
Response	39 Years Old or Younger	40-49 Years Old	50 and Older	Total
Very Dissatisfied	1/4*%*	5/*8%*	4/7*%*	10/7*%*
Dissatisfied	5/20*%*	12/*19%*	7/*12%*	24/*16%*
Neutral	4/*16%*	24/39*%*	18/30*%*	46/31*%*
Satisfied	8/*32%*	18/29*%*	23/38*%*	49/*33%*
Very Satisfied	7/28*%*	3/5*%*	8/13*%*	18/12*%*

Education Levels

Education Level analysis poses some uncertainties, because the records typically reflect the highest recorded education level when an employee last applied for his or her position. Since most MA positions have not historically required specific degrees or other evidence of educational credentials, employees have not had the incentive to update the education information in their official personnel files.

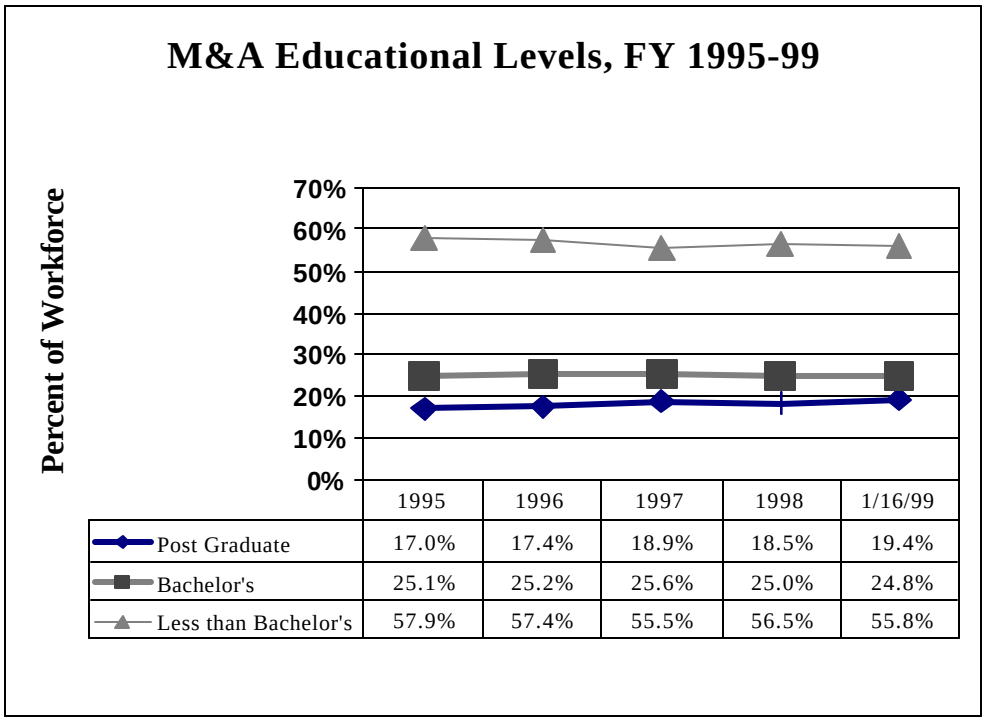
However, even recognizing that there are undoubtedly data accuracy problems, there are some important characteristics of the MA workforce that are worthwhile to note. First, as shown in the summary table 9 below, the MA workforce has a higher proportion of college graduates than the overall Federal workforce, but a lower percentage of college graduates than the total DOE workforce. Both men and women in MA are about 30% less likely to have college degrees than their counterparts in the DOE workforce, but for both DOE and MA, there are substantial differences in education levels between women and men.

Table 9: MA Education Level Comparisons

	HS or Less	Some College	College Graduation
Federal Workforce, 1997	60%		40%
DOE, 1999	18%	16%	66%
Men	9%	11%	80%
Women	33%	24%	43%
MA, 1999 (includes PCSD)	38%	17%	45%
Men	30%	14%	56%
Women	46%	21%	32%

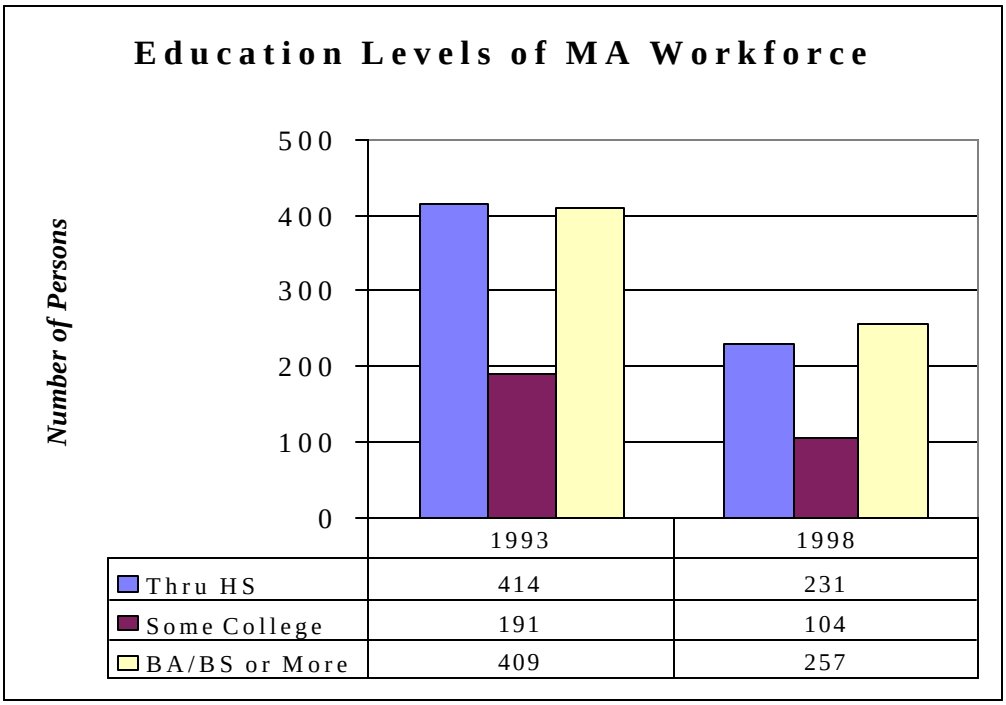
In percentage terms, the composition of the MA workforce has remained relatively stable over the past five years, as reflected in Figure 25 below. This means, among other things, that MA has lost a significant number of staff with higher education during the downsizing of recent years. Figure 26 illustrates this phenomenon by comparing the numbers of employees of different education levels in the MA workforces of 1993 and 1998.

Figure 25



	1995	1996	1997	1998	1/16/99
Post Graduate	17.0%	17.4%	18.9%	18.5%	19.4%
Bachelor's	25.1%	25.2%	25.6%	25.0%	24.8%
Less than Bachelor's	57.9%	57.4%	55.5%	56.5%	55.8%

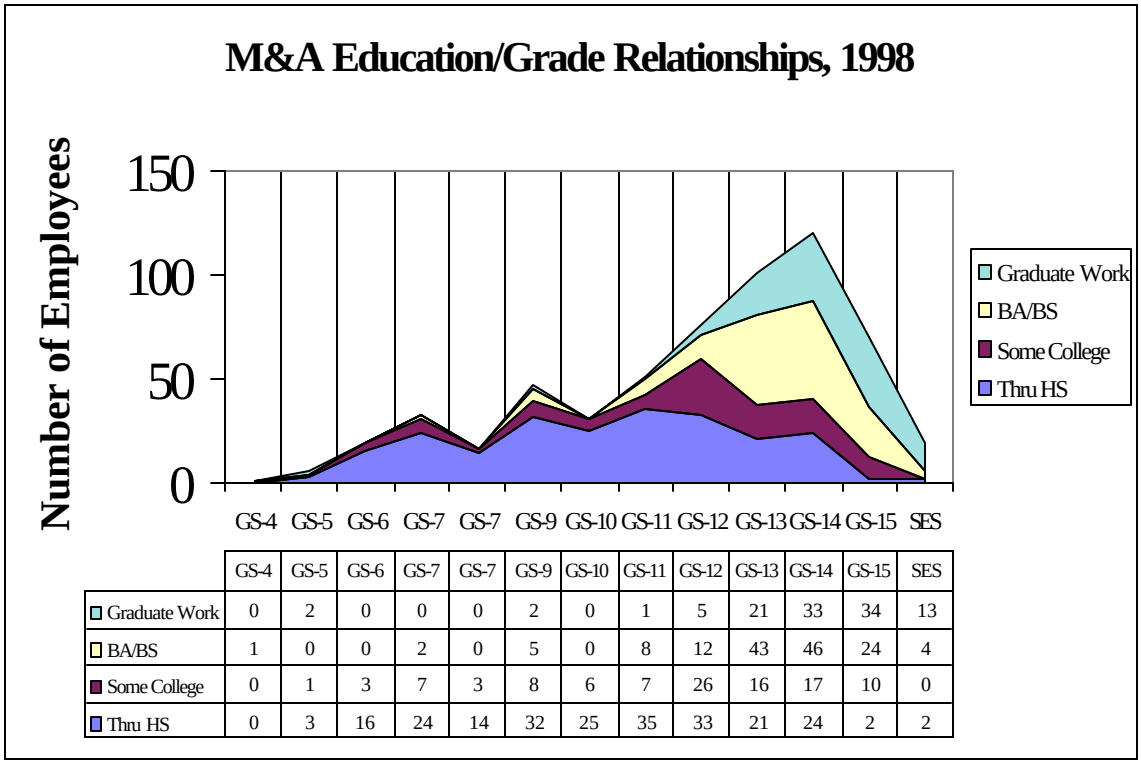
Figure 26



	1993	1998
Thru HS	414	231
Some College	191	104
BA/BS or More	409	257

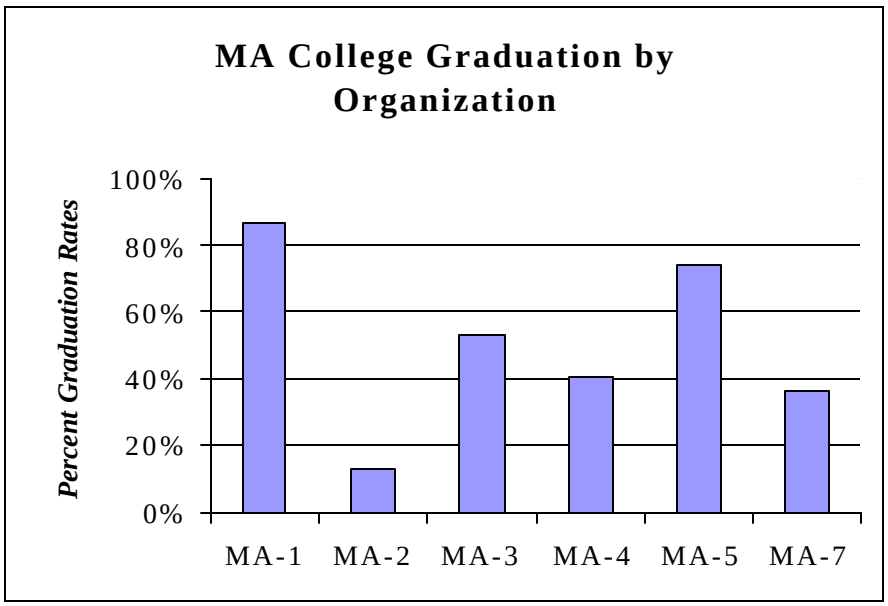
Within MA, there is a clear relationship between the level of education of the employee and the grade level achieved, as shown in Figure 27 below. There are also significant differences among MA organizations in the level of education, as represented by the college graduation rates shown in Figure 28.

Figure 27



	GS-4	GS-5	GS-6	GS-7	GS-7	GS-9	GS-10	GS-11	GS-12	GS-13	GS-14	GS-15	SES
Graduate Work	0	2	0	0	0	2	0	1	5	21	33	34	13
BA/BS	1	0	0	2	0	5	0	8	12	43	46	24	4
Some College	0	1	3	7	3	8	6	7	26	16	17	10	0
Thru HS	0	3	16	24	14	32	25	35	33	21	24	2	2

Figure 28



Tables 10 and 11 provide the source data on MA and DOE education levels.

TABLE 10: MA EDUCATION LEVELS, 1999	TOTAL	F	M
SOME ELEMENTARY - DID NOT COMPLETE	1		1
SOME HIGH SCHOOL - DID NOT GRADUATE	11	5	6
HIGH SCHOOL GRADUATE OR CERT OF EQUIV	195	118	77
TERMINAL OCCUPATIONAL PROGRAM - CERT OF COMPL	10	3	7
TERMINAL OCCUPATIONAL PROGRAM - DID NOT COMPLETE	9	6	3
Subtotal - High School or Below:	**226**	**132**	**94**
Percent of MA Population:	**37.5%**	**21.9%**	**15.6%**
1 YEAR COLLEGE	28	18	10
2 YEAR COLLEGE	20	12	8
3 YEARS COLLEGE	3	3	
4 YEARS COLLEGE	7	4	3
ASSOCIATE DEGREE	18	9	9
SOME COLLEGE - LESS THAN 1 YEAR	29	15	14
Subtotal - Some College:	**105**	**61**	**44**
Percent of MA Population:	**17.4%**	**10.1%**	**7.3%**
BACHELOR'S DEGREE	155	66	89
DOCTORATE DEGREE	8	2	6
FIRST PROFESSIONAL DEGREE	8	1	7
MASTER'S DEGREE	69	15	54
POST-BACHELOR'S WORK	27	7	20
POST-MASTER'S WORK	3	1	2
SIXTH YEAR DEGREE	1		1
Subtotal - Bachelors Degree or Above:	**271**	**92**	**179**
Percent of MA Population:	**45.0%**	**15.3%**	**29.7%**
Grand MA total:	**602**	**285**	**317**

TABLE 11: DOE EDUCATION LEVELS, 1999	TOTAL	F	M
SOME ELEMENTARY - DID NOT COMPLETE	2		2
SOME HIGH SCHOOL - DID NOT GRADUATE	77	64	13
HIGH SCHOOL GRADUATE OR CERT OF EQUIV	2038	1465	573
TERMINAL OCCUPATIONAL PROGRAM - CERT OF COMPL	210	113	97
TERMINAL OCCUPATIONAL PROGRAM - DID NOT COMPLETE	122	80	42
Subtotal - High School or Below:	**2449**	**1722**	**727**
Percent of DOE Population:	**18.4%**	**12.9%**	**5.5%**
1 YEAR COLLEGE	464	289	175
2 YEARS COLLEGE	320	172	148
3 YEARS COLLEGE	149	74	75
4 YEARS COLLEGE	100	42	58
ASSOCIATE DEGREE	369	185	184
SOME COLLEGE - LESS THAN 1 YEAR	713	490	223
Subtotal - Some College:	**2115**	**1252**	**863**
Percent of DOE Population:	**15.9%**	**9.4%**	**6.5%**
BACHELOR'S DEGREE	4081	1249	2832
DOCTORATE DEGREE	606	74	532
FIRST PROFESSIONAL DEGREE	506	181	325
MASTER'S DEGREE	2548	502	2046
POST - FIRST PROFESSIONAL WORK	49	9	40
POST - SIXTH YEAR WORK	9	1	8
POST-BACHELOR'S WORK	662	165	497
POST-DOCTORATE WORK	55	8	47
POST-MASTER'S WORK	198	31	167
SIXTH YEAR DEGREE	21	4	17
Subtotal - Bachelors Degree or Above:	**8735**	**2224**	**6511**
Percent of DOE Population:	**65.7%**	**16.7%**	**49.0%**
Grand DOE total:	**13299**	**5198**	**8101**